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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD/INL PROJECT OFFICE
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July 22, 2005

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U.S. Department of Energy
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Subject: Response to DOE Disposition of Comments on 200-CW-5 Feasibility Study (FS) and Proposed Plan (PP)

Dear Mr. Foley:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Department of Energy (DOE) responses to EPA comments and Washington State Department of Ecology (Ecology) supporting comments on the 200-CW-5/2/4/SC-1 Operable Unit Group FS and PP. The EPA received the responses May 24, 2005, and requested a 30-day extension for review. 63154 63155

The EPA appreciates receiving the responses to comments and the positive tone of those responses. There were a few of the specific responses that we thought required additional information. Others we disagree with but are looking forward to entering into dialogue to resolve issues and eventually come to agreement on a set of preferred alternatives for the waste sites within these operable units. We would like to take this opportunity to discuss some of those specific responses and our differences on preferred alternatives. 65326

One response that we believe was lacking was to the EPA comment on the FS labeled as "5a" in the response table. This revolved around our comment on the evaluation of the in situ vitrification (ISV) remedial alternative and technology. Discussion of this technology indicated that it hasn't been demonstrated at Hanford for at least 10 years. However, a demonstration of this technology is currently going on near the HAMMER facility with possible applications at Hanford. The maturity of this technology has progressed, and we recommend that DOE managers with 200 Area responsibilities learn more about the ongoing demonstration and consider the potential for use of ISV as a remedial alternative.

Regarding the response labeled "31" on the Proposed Plan, we disagree with the rationale presented on several issues. This response argues against the benefits of centralized institutional controls and disposal at the Environmental Restoration Disposal Facility (ERDF). DOE makes the point that the final cap design for ERDF doesn't presently include intruder protection and that capping at the waste site with such protections is an advantage over a remove, treat and dispose (RTD) alternative that sends the waste to ERDF. The problem we see with this argument is that the design for ERDF's final cap hasn't been created yet and that it is quite likely this cap will have features designed to deter intrusion. The DOE also makes a claim that they

believe centralized institutional controls (like at ERDF) are not easier to maintain than institutional controls spread here and there across the 200 Areas. We think that institutional controls are easier to maintain and keep track of if there is less complexity and more centralization.

The DOE response to #31 also states the belief that centralizing waste disposal at ERDF, instead of leaving in place around the 200 Areas, could lead to significant impacts to groundwater if ERDF fails. This is based on the concept that the higher contaminant inventory at ERDF would have fewer sorption sites in the vadose zone to slow contaminant flow to groundwater than under several disperse waste site locations. The EPA believes that the thick vadose zone (approximately 200 feet) presents a situation where sorption sites are not a limitation. We also feel that there is little chance of catastrophic failure for ERDF considering the semi-arid climate at Hanford and the careful risk assessment and performance planning that went into the development of its design and waste acceptance criteria. Also, capping requirements will require long-term operations and maintenance designed to prevent failure.

The EPA agrees with the preferred alternatives proposed by DOE for most of the sites in these operable units. However, we strongly disagree with the choice of capping for the Z-Ditches due to the long-lived nature and high levels of transuranic isotopes in the shallow zone soils over this long (0.8 mile), narrow set of waste sites. Some portions of these waste sites will not reach preliminary remediation goals for greater than 10,000 years. The duration of risk and the potential for intrusion, especially through the scenario of trenching with heavy equipment in an area of industrial land use, require the selection of RTD. Discussions at the Inter-Agency Management Integration Team (IAMIT) Executive Committee meetings have indicated a willingness within the Tri-Parties to explore excavation and disposition options for the Z-Ditches that would reduce costs while maintaining long-term environmental protection. We wish to discuss these options further to reach consensus on RTD as the preferred alternative for the Z-Ditches.

The EPA still believes that partial RTD and capping may be the preferred remedy for the U Pond and its analogous sites. However, we wish to discuss the merits of the capping alternative that DOE has proposed as the preferred alternative. We wish to meet with DOE to discuss preferred remedial alternatives for the various waste sites and to pass along information aimed at improving the feasibility study and proposed plan documents.

Please contact me at (509) 376-8665 to schedule a meeting.

Sincerely,

Craig Cameron
Project Manager

cc: John Price, Ecology
Mike Hickey, FH
Administrative Record: 200-CW-5 OU